

Anopheles occidentalis Dyar & Knab.

Anopheles larvæ were common in protected spots around the shores of Lake Whatcomb, Bellingham, Washington, May 31, 1917. The specimens were not bred, having been accidentally left behind on a train in the hurry of making a quick connection, but are presumably of this species.

**NOTES ON AEDES AT LAKE PEND D'OREILLE,
IDAHO**

(*Diptera, Culicidæ*)

BY HARRISON G. DYAR

A brief stop was made, July 3-4, 1917, at Sandpoint, on Lake Pend d'Oreille, and a trip taken to Sunnyside, an hour's ride down the lake. The altitude is 2,096 feet above sea level. The country is mountainous and well forested with conifers down to the lake margin. The following species of *Aedes* were taken:

Aedes aestivalis Dyar.

Seventy-three females and twenty-eight males. The mesonotum is whiter than in typical *aestivalis* from Kaslo, British Columbia, only a few being of the yellow color. This was noticeable to the naked eye, for when the mosquitoes would alight on dark clothing at dusk they looked like little flakes of cotton. Under a lens, most are ash gray with a broad central brown stripe, rarely narrowly divided on mesial line. There is a sprinkling of white scales on the wing along costa and subcostal vein.

The genitalia as described in the monograph (vol. iv, p. 742) should be slightly corrected. The basal lobe of the sidepiece is not accompanied by a stout hooked spine, but by a group of stiff setæ the outmost of which is thickened and has a large insertion, the spine not being fully differentiated as our description implies. The filament of the harpagone should be described as angularly widened near base. The apical lobe of the sidepiece is sparsely setose, being bare only at the tip on

the under side, which shows only in strongly appressed mounts. The genitalia, therefore, are as in *hirsuteron*, *idahoënsis*, *spencerii*, and *aldrichi*, these species having genitalia of the same type. Indeed, the adults are similar, all having the same coloration of the legs and mesonotal marking, which is subject to variation. In *idahoënsis* and *spencerii* the wing scales are parti-colored as befits a prairie life; in the other three they are black, as suits the forest. Not improbably these species are recently evolved and not fully separated where their localities adjoin. Their general regions are well marked; *aestivalis* in the forests of the Rocky Mountains; *hirsuteron* in the southern Atlantic region; *spencerii* in the prairies of Canada; *idahoënsis* in the river prairies of Nevada, Idaho, and Montana; *aldrichi* in the river bottoms with *idahoënsis*.

Aëdes idahoënsis Theobald.

One female.

Aëdes cinereus Meigen (*fuscus* Osten Sacken).

One male and three females.

Aëdes canadensis Theobald.

Three females.

Aëdes vexans Meigen (*sylvestris* Theobald).

Nine males and four females.

Aëdes sansoni Dyar & Knab.

One male and sixteen females. The male is *sansoni*, as determined by the genitalia; but *abfitchii* Felt & Young¹ may also occur. At Kaslo, British Columbia, on Kootenai Lake, of essentially the same fauna as this, *abfitchii*¹ was determined. I think both will be found, as lake pools should develop *sansoni*, while *abfitchii*¹ comes from marshes, for which there is opportunity at Sandpoint.

In comparison with the Kaslo list (Proc. Ent. Soc. Wash., vi, 37, 1904), the following *Aëdes* were there noted:

Aëdes pullatus Coquillett (as *impiger* Walker).

Aëdes abfitchii Felt & Young¹ (as *cantans* Meigen).

¹This should be called *A. mimesis* Dyar. See my remarks under this heading in a paper on the *Aëdes* of Montana, which follows.

- Aedes aestivalis* Dyar (as *reptans* Meigen).
Aedes canadensis Theobald.
Aedes trichurus Dyar (as *punctor* Kirby).
Aedes vexans Meigen (as *sylvestris* Theobald).
Aedes varipalpus Coquillett.
Aedes curriei Coquillett.
Aedes spencerii Theobald.
Aedes cinereus Meigen (as *fuscus* Osten Sacken).

The smaller number of species at Lake Pend d'Oreille is partly accounted for by the brief time devoted to collecting, the early forms, *pullatus* and *trichurus*, having probably disappeared. *A. curriei* and *spencerii* are strays at Kaslo, as is *idahoënsis* at Sandpoint. The tree-hole species, *varipalpus*, may be locally present at Lake Pend d'Oreille. Aside from these, the lists are identical.

NOTES ON THE AEDES OF MONTANA

(*Diptera, Culicidæ*)

BY HARRISON G. DYAR

A brief report on the mosquitoes of Montana is given in the Fourteenth Annual Report of the State Entomologist of Montana, December, 1916, by J. R. Parker. He lists (omitting *Culex*, *Culiseta* and *Anopheles*):

- Aedes curriei* Coquillett, the most abundant species.
Aedes sylvestris Theobald, the next in abundance.
Aedes nigromaculis Ludlow, the third in abundance.
Aedes spencerii Theobald, the fourth in abundance.
Aedes pullatus Coquillett, in timber at high altitudes.

NOT COMMON

- Aedes campestris* Dyar & Knab.
Aedes fletcheri Coquillett.
Aedes stimulans Walker (group).
Aedes idahoënsis Theobald.
Aedes hirsuteron Theobald.
Aedes fuscus Osten Sacken.

A cursory passage of the State reveals certain additional information, which is here noted.